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09/615,163	07/13/2000	Thomas G. Bever	11927 P01	4750

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EXAMINER

LUDWIG, MATTHEW J

ART UNIT	PAPER NUMBER
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2178

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/615,163

Applicant(s)

BEVER ET AL.

Examiner

Matthew J. Ludwig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the Request for Continuing Examination filed 8/16/05.

2. Claims 1-33 are pending in the case. Claims 1, 29, 32, and 33 are independent claims.

Applicant added claims 34-45.

3. Claims 1-10, 12, 13, 15-18, 20-28, 29, 32, and 33, remain rejected under 35 U.S.C.

103(a) as being unpatentable over Walker. Claims 42-45 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Walker in view of Truelson.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-45 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. More specifically, the claims describe the step of '*providing a library of keywords and punctuation definitions that identify the beginning or end of a phrase*'. Support in the specification could not be found that defines said keywords or how the keywords are used to determine the beginning or end of a phrase. Evidence in the specification was found on page 6 that described the examination of a phrase for punctuation. If it finds punctuation, it knows that the second word is the end of a sentence in the case of a period, question mark, or exclamation point. However, one of ordinary

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skill in the art would not know what defines a keyword and how the keywords are used in the identification of the beginning or end of a phrase. There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue."

These factors include, but are not limited to:

- (A) The breadth of the claims;
- (B) The nature of the invention;
- (C) The state of the prior art;
- (D) The level of one of ordinary skill;
- (E) The level of predictability in the art;
- (F) The amount of direction provided by the inventor;
- (G) The existence of working examples; and
- (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

After looking at all of the above-mentioned factors, the examiner is left without a sufficient means of knowing how to use keywords to identify the beginning or end of a phrase. The examiner's analysis must consider all the evidence related to each of these factors, and any conclusion of nonenablement must be based on the evidence as a whole. 858 F.2d at 737, 740, 8 USPQ2d at 1404, 1407. A conclusion of lack of enablement means that, based on the evidence regarding each of the above factors, the specification, at the time the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation. In re Wright, 999 F.2d 1557, 1562, 27

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USPQ2d 1510, 1513 (Fed. Cir. 1993).

The limitations within the independent claims recite the step of '*repeating steps c-d until all the text input has been analyzed*'. This step, if carried out, would look only at a first plurality of words. The limitation would not have the ability to parse through the entire text because it would repeat the step of examining a first plurality of words of said text. The examiner recommends changing said step to provide a way of examining the entire text.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the library of keywords and punctuation definitions that identify the beginning or end of a phrase must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1-10, 12, 13, 15-18, 20-28, 29, 32, and 33, are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker, USPN 6,279,017 filed (2/2/98).**

In reference to independent claim 1, Walker teaches:

- Extracting attributes such as parts of speech from an input sentence (compare to “*providing text input*”). See column 2, lines 60-67.
- Words are looked up in dictionaries, glossaries, and tables to determine word attributes (compare to “*providing a library of function words and punctuation definitions*”). See column 11, lines 60-64. Furthermore, the reference teaches primary folding point locations can be stored as an attribute in a node in a linked list of nodes forming the enriched sentence. See column 13, lines 50-54.
- The text is parsed to identify paragraphs, sentences, words, and punctuation (compare to “*examining a first plurality of words of said text input*”). See column 11, lines 27-32.

- Folding points are determined using primary folding rules, which determine primary folding point locations based on punctuation marks (compare to “*determining using said function words and punctuation definitions, whether said first plurality of words includes a phrase*”). See column 13, lines 40-67. The reference further discloses secondary folding points before the prepositions “in” and “of”. Secondary folding points divide Super-phrases into “Mini-phrases”. See column 14, lines 20-30. The defined term phrase (as currently claimed) and the phrase techniques taught by Walk provide a reasonable suggestion of the utilization of function words and punctuation definitions for determining said phrase within text.

- Produce a text presentation product in time and in space that is more meaningful and enhances the reader’s ability to comprehend the literal meaning of the text to a greater degree than existing formats on computers (compare to “*formatting said text input according to said determined phrases whereby the text input is formatted to enhance readability*”). See column 4, lines 28-32.

The reference does not explicitly disclose marking the phrase; however, it would have been obvious to one of ordinary skill in the art, having the teachings of Walker before him at the time the invention was made, to modify the folding point (*Phrase*) storing methods of Walker and marked the phrase found within the text, because a database provides the essential nodes in the formation of enriched sentences and would have given the user the added benefit of improved reading comprehension when one sentence appears at a time and when the transition from one paragraph to another is signaled within a database and allows for a pause for the appearance of these elements of text.

In reference to dependent claim 2, Walker teaches:

Extracting text specific attributes from machine-readable text and creating a visual product for enhancing the reading experience. See column 2, lines 58-65. The reference does not explicitly disclose what type of device is providing the machine readable text; however, there are many such devices well known in the art that are capable of supplying a processor with machine readable text. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have received machine readable text from a speech recognition device, computer keyboard, touch pad, on-screen touch pad, handwriting recognition device, prosthetic device, network input, or a text-generating computer application. For the following reasons, the devices, which were well known in the art for providing machine-readable text based on the user's preferred input method would have provided proficient machine-readable text based input devices and given the user a variety of input means within the claimed invention.

In reference to dependent claim 12, 13, Walker teaches:

Sentences are segmented according to reader-approved rules. Each preposition folds a phrase in a predictable way, resulting in two text segments, each lying on a new line. See column 3, lines 58-61. The reference further discloses displaying text on opposed pages such that reading of text across the opposed pages can occur without waiting for pagination. See column 4, lines 43-50. The reference utilizes rules within the text based display method and provides a reasonable interpretation of templates within a defined library specified by the user and their preferences. The rule-based system as taught by Walker describes a trial and error process and suggests a similar idea as that of a neural network.

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In reference to dependent claim 15, Walker teaches:

The visual attributes can include text segmentation, horizontal displacement of one line relative to another, text and background color, text brightness, and animation. See column 3, lines 27-31.

In reference to dependent claim 16-18, Walker teaches:

The visual attributes can include text segmentation, horizontal displacement of one line relative to another, text and background color, text brightness, and animation. See column 3, lines 27-31.

In reference to dependent claim 20-28, Walker teaches:

The enhanced text being viewed by readers of an electronic book. See column 16, lines 20-35. The reference further discloses enhanced text stored in standard word processing format such as Microsoft Word or Corel Word Perfect. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the text enhancing techniques of Walker and provided the enhanced text for presentation to user devices such as a printer, speech synthesizer, video broadcast as closed-caption subtitles, a web page, magazine, or direct marketing literature, because they all utilize the Microsoft word processing format. The utilization of the standard word processing format taught by Walker would have provided the user enhanced presentation devices for enhanced text.

In reference to claim 29, the claim reflects the system comprising instructions used for performing the methods as claimed in claims 1, respectfully, and in further view of the following, is rejected along the same rationale.

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In reference to claims 32 and 33, the claims reflect similar limitations used for performing the methods as claimed in claim 1, respectively, and in further view of the following, is rejected along the same rationale.

In reference to dependent claim 34, Walker teaches:

Produce a text presentation product in time and in space that is more meaningful and enhances the reader's ability to comprehend the literal meaning of the text to a greater degree than existing formats on computers. See column 4, lines 28-32.

In reference to dependent claim 35, Walker teaches:

Sentences are segmented according to reader-approved rules. Each preposition folds a phrase in a predictable way, resulting in two text segments, each lying on a new line. See column 3, lines 58-61. The reference further discloses displaying text on opposed pages such that reading of text across the opposed pages can occur without waiting for pagination. See column 4, lines 43-50. The reference utilizes rules within the text based display method and provides a reasonable interpretation of templates within a defined library specified by the user and their preferences. The rule-based system as taught by Walker describes a trial and error process and suggests a similar idea as that of a neural network.

In reference to dependent claim 36, Walker teaches:

Produce a text presentation product in time and in space that is more meaningful and enhances the reader's ability to comprehend the literal meaning of the text to a greater degree than existing formats on computers. See column 4, lines 28-32.

In reference to dependent claim 40, Walker teaches:

The reference does not explicitly disclose marking the phrase; however, it would have been obvious to one of ordinary skill in the art, having the teachings of Walker before him at the time the invention was made, to modify the folding point (*Phrase*) storing methods of Walker and marked the phrase found within the text, because a database provides the essential nodes in the formation of enriched sentences and would have given the user the added benefit of improved reading comprehension when one sentence appears at a time and when the transition from one paragraph to another is signaled within a database and allows for a pause for the appearance of these elements of text.

In reference to dependent claim 41, Walker teaches:

Sentences are segmented according to reader-approved rules. Each preposition folds a phrase in a predictable way, resulting in two text segments, each lying on a new line. See column 3, lines 58-61. The reference further discloses displaying text on opposed pages such that reading of text across the opposed pages can occur without waiting for pagination. See column 4, lines 43-50. The reference utilizes rules within the text based display method and provides a reasonable interpretation of templates within a defined library specified by the user and their preferences. The rule-based system as taught by Walker describes a trial and error process and suggests a similar idea as that of a neural network.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Walker USPN 6,279,017 filed (2/2/98) in view of Truelson, USPN 6,223,191 filed

(2/12/1998).

In reference to independent claim 42, Walker teaches:

- Extracting attributes such as parts of speech from an input sentence (compare to *“providing text input”*). See column 2, lines 60-67.
- Words are looked up in dictionaries, glossaries, and tables to determine word attributes (compare to *“providing a library of function words and punctuation definitions”*). See column 11, lines 60-64. Furthermore, the reference teaches primary folding point locations can be stored as an attribute in a node in a linked list of nodes forming the enriched sentence. See column 13, lines 50-54.
- The text is parsed to identify paragraphs, sentences, words, and punctuation (compare to *“examining a first plurality of words of said text input”*). See column 11, lines 27-32.
- Folding points are determined using primary folding rules, which determine primary folding point locations based on punctuation marks (compare to *“determining using said function words and punctuation definitions, whether said first plurality of words includes a phrase”*). See column 13, lines 40-67. The reference further discloses secondary folding points before the prepositions “in” and “of”. Secondary folding points divide Super-phrases into “Mini-phrases”. See column 14, lines 20-30. The defined term phrase (as currently claimed) and the

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phase techniques taught by Walk provide a reasonable suggestion of the utilization of function words and punctuation definitions for determining said phrase within text.

- Produce a text presentation product in time and in space that is more meaningful and enhances the reader's ability to comprehend the literal meaning of the text to a greater degree than existing formats on computers (compare to "*formatting said text input according to said determined phrases whereby the text input is formatted to enhance readability*"). See column 4, lines 28-32.

The reference does not explicitly disclose marking the phrase; however, it would have been obvious to one of ordinary skill in the art, having the teachings of Walker before him at the time the invention was made, to modify the folding point (*Phrase*) storing methods of Walker and marked the phrase found within the text, because a database provides the essential nodes in the formation of enriched sentences and would have given the user the added benefit of improved reading comprehension when one sentence appears at a time and when the transition from one paragraph to another is signaled within a database and allows for a pause for the appearance of these elements of text.

The reference does not explicitly teach assigning values to the spaces between words in said plurality, said assigned value being the likelihood that the word is the beginning or end of a phrase. However, Truelson provides formatted text both easier to read and more aesthetically appealing because it will have few hyphenated words, letter spaced words, or related undesirable formatting characteristics. See column 3, lines 1-10. More specifically, the reference provides the assignment of values and the determination of a letter spacing threshold. Both directives relate to

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the beginning and end of phrases and therefore would have provided proficient information to a designated formatter.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Walker and Truelson before him at the time the invention was made, to modify the folding point method taught by Walker to include the value-assessing techniques of Truelson because it would have given the formatter the necessary information to fold lines more accurately and increased the readability of paragraphs.

In reference to claims 43-45, the limitations reflect similar instructions used for performing the methods as claimed in independent claim 42, and in further view of the following, is rejected along the same rationale.

Response to Arguments

9. Applicant's arguments filed 8/16/05 have been fully considered but they are not persuasive.

Applicant states on page 14 of the amendment that applicant's invention is directed at improving the readability of text while maintaining the aesthetics accepted within the mainstream print community for text. The Examiner believes this argument is subjective in nature and fails to provide one of ordinary skill in the art with a way to define the mainstream print community for text.

Applicant argues on page 15 of the amendment that the applicant's invention determines the phrases for "all the text input". Walker provides the parsing techniques for text files. The reference suggests parsing through the text document which would illustrate a proficient means

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for determining the phrases for “all the text input” and “formatting said text input according to said determined phrases. The applicant is reminded that the claim limitations are to be given their broadest reasonable interpretation within the scope of the art. Walker discloses words that are looked up in dictionaries, glossaries, and tables to determine word attributes. See column 11, lines 60-64. Furthermore, the reference teaches primary folding point locations can be stored as an attribute in a node in a linked list of nodes forming the enriched sentence. See column 13, lines 50-54. Function words are suggested within the reference and taught through the visual attributes including text segmentation, horizontal displacement of one line relative to another, text and background color, text brightness, and animation.

On page 17 of the amendment applicant argues the selection of a particular font and font size is not taught by the primary reference. Walker teaches that the text display attributes can include text displacement, font height, font thickness, inter character spacing, inter-word spacing, and interline spacing. The reference provides a suggestion of a font selection as disclosed within the claim language.

In reference to independent claim 29, the applicant argues that Walker does not assign every space as a break point; only those that meet the primary or secondary folding criteria are assigned. Furthermore, the applicant states that because Walker is only with separating phrases onto different lines for display there is no reason to assign breakpoints to all spaces. The applicant seems to be arguing language that is not found within the limitations of the claim. More specifically, the claim states assigning values to the spaces between words in said plurality. The claim fails to state assigning values to every space between each word as argued within the applicant's amendment.

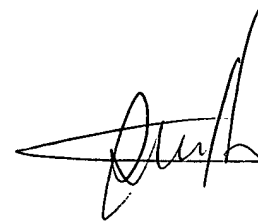
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Ludwig whose telephone number is 571-272-4127. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML
November 7, 2005

A handwritten signature in black ink, appearing to read 'Stephen Hong', with a long horizontal line extending to the left.

**STEPHEN HONG
SUPERVISORY PATENT EXAMINER**